REMARKS

The Official Action dated June 1, 2005 has been carefully considered. Accordingly, the change presented herewith, taken with the following remarks, are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

By the present Amendment, claim 11 is are amended to recite that the patient is not growth hormone deficient, in accordance with the teachings of the application and Applicant's previous arguments and positions. It is believed that this change does not involve any introduction of new matter, and does not raise any new issue subsequent to final rejection, whereby entry is believed to be in order and is respectfully requested.

In the Official Action, claims 11-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Johansson et al, *Metabolism*, 44(9):1126-1129 (1995), taken with Rosen et al, *Acta Endocrinologia*, 129:195-200 (1993) and Reaven et al, *N. Eng. J. Med.*, 334(6):374-381 (1996). In response to Applicants' previous arguments, the Examiner asserted that Applicants' claims did not exclude administering growth hormone to patients who are growth hormone deficient.

However, as set forth in detail below, Applicants submit that the methods defined by claims 11-19 are nonobvious over and patentably distinguishable from the combination of Johansson et al, Rosen et al and Reaven et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

More particularly, as defined by claim 11, the present invention is directed to a method for treating a patient having Metabolic Syndrome comprising Primary Insulin Resistance and exhibiting lipoprotein aberrations or hypertension, but who is not growth hormone deficient. The method comprises administering to the patient human growth

hormone or an analog thereof in an amount effective for decreasing lipoprotein aberrations or hypertension of the patient.

Applicants find no teaching, suggestion or reference by Johansson et al of a method for treating a patient having Metabolic Syndrome comprising Primary Insulin Resistance, particularly to decrease lipoprotein aberrations or hypertension of a patient, as recited in claim 11. Rather, the Johansson et al reference is directed to insulin resistance of adult patients who are growth hormone deficient. As noted above, such patients are excluded from the present methods. The 1993 Fowelin et al study, cited by Johansson et al in the paragraph bridging pages 1128 and 1129, teaches that initial treatment of growth hormone deficient patients induced a markedly worsened insulin resistance after 6 weeks, and that after 26 weeks of growth hormone treatment, insulin sensitivity returned to base line values in the growth hormone deficient patients. Applicants find no teaching, suggestion, or reference in Johansson et al of the use of growth hormones to decrease lipoprotein aberrations or hypertension in patients who have Metabolic Syndrome comprising Primary Insulin Resistance. Therefore, one of ordinary skill in the art would not have immediately envisaged the use of growth hormones as disclosed by Johansson et al to treat a patient with Metabolic Syndrome.

Moreover, the previously submitted Declaration under 37 CFR 1.132 of Dr. Sigbritt A. M. Werner, establishes, based on her experience in the medical fields, and particularly the field of endocrinology, that growth hormone deficient patients are distinct from patients who are not growth hormone deficient. Specifically, growth hormone deficient patients do not produce growth hormones and therefore their hormone levels and their therapeutic responses to growth hormone administration differ significantly from the hormone levels and therapeutic response to growth hormone administration in a patient who is not growth hormone deficient. Thus, a therapeutic response to growth hormone administration in a growth hormone deficient patient

cannot be used to predict a response to growth hormone administration in a patient who is not growth hormone deficient. Specifically, the effect of growth hormone administration on insulin resistance in a growth hormone deficient patient cannot be used to predict an effect of growth hormone administration on insulin resistance in a patient who is not growth hormone deficient.

Also, as noted in the Declaration, based on her experience in the field of endocrinology, it is Dr. Werner's opinion that an individual who has Metabolic Syndrome does not inherently exhibit growth hormone deficiency, and an individual who has growth hormone deficiency does not inherently exhibit Metabolic Syndrome. Further, based on her experience in the field of endocrinology, it is her opinion that Johansson et al do not teach or suggest insulin resistance in individuals with Metabolic Syndrome and thus, cannot be used to suggest growth hormone administration to individuals having Metabolic Syndrome comprising Primary Insulin Resistance.

References relied upon to support a rejection under 35 U.S.C. §103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). In view of the failure of Johansson et al to teach, suggest or recognize a method for decreasing lipoprotein aberrations or hypertension in a patient with Metabolic Syndrome comprising Primary Insulin Resistance, particularly by administering human growth hormone, Johansson et al do not provide an enabling disclosure of the present invention, and therefore do not support a rejection of the present claims, which exclude growth hormone deficient patients, under 35 U.S.C. §103.

Moreover, the deficiencies of Johansson et al are not resolved by Rosen et al and/or Reaven et al. That is, Rosen et al describe a study wherein subjects with growth hormone deficiency and adequate replacement therapy with glucocorticoids, thyroid hormones and gonadal steroids were studied with respect to known risk factors for cardiovascular disease. Applicants find no teaching or suggestion by Rosen et al relating to treatment of individuals

with Metabolic Syndrome, particularly Metabolic Syndrome comprising Primary Insulin Resistance, or relating to such individuals exhibiting lipoprotein aberrations or hypertension.

Reaven et al describe changes in glucose, insulin and lipoprotein metabolism in patients with hypertension. Reaven et al also discuss the role of the sympathoadrenal system in the development of hypertension and the related metabolic changes, and the metabolic effects of anti-hypertensive drugs that effect the sympathoadrenal system. However, Applicants find no teaching or suggestion by Reaven et al relating to treatment of an individual having Metabolic Syndrome and comprising Primary Insulin Resistance by administering human growth hormone, particularly in an amount effective for decreasing lipoprotein aberrations or hypertension of such an individual.

In view of the failure of Rosen et al and Reaven et al to teach or suggest administering human growth hormone in order to decrease lipoprotein aberrations of hypertension in an individual having Metabolic Syndrome comprising Primary Insulin Resistance, neither of these references resolve the deficiencies of Johansson et al. Thus, these references in combination do not provide an enabling disclosure of the presently claimed methods and do not place the claimed methods in the possession of the public. Thus, the combination of Johansson et al, Rosen et al and Reaven et al do not support a rejection of claims 11-19 under 35 U.S.C. §103. It is therefore submitted that the rejection has been overcome, and reconsideration is respectfully requested.

It is believed that the above represents a complete response to the rejection under 35 U.S.C. §103 set forth in the Official Action, and places the present application in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully submitted,

By _____

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